



Level 4, 10 Mallett Street
Camperdown NSW 2150
Phone: 02 9565 0000

CONSTRUCTION MANAGEMENT PLAN

URBANEST
New Student Accommodation, Darling Drive, Haymarket NSW, 2000.
BN13003

Record of revisions of Construction Management Plan

Edition Revision	Date	Section	Page	Revision Details
01	02- May-13	Plan created	All	New Plan
02	14-May-13	Plan revised	All	Group Review
03	24-May-13	Plan revised	3,4,6,7,10,11	Group Review
04	28-May-13	Plan Revised	3,6, 8,10,	Group Review
05	28-May 13	Plan Revised	All	Include Standard Text

Contents

1.0	(SICEEP)Introduction	3
1.1	Overview of Proposed Development	3
1.2	Background	3
1.3	Site Description	4
1.4	Planning approvals Strategy	6
2.0	Buildcorp CMP Introduction	7
2.1	Purpose	7
2.2	Scope	7
2.3	Project Description	7
3.0	Public Safety, Amenity and Site Controls	7
3.1	Objectives	7
3.2	Permits/Licenses and Approvals	7
3.3	Safety & Security	8
3.4	Hazardous Chemicals	8
3.5	Signage	8
3.6	Public Domain	8
3.7	Demolition of Existing Structures	9
3.8	Excavation	9
3.9	Existing Trees	9
3.10	Site Appearance	9
3.11	Site Personnel Parking	9
3.12	Site Personnel Behavior	9
4.0	Operating Hours, Noise and Vibration Controls	10
4.1	Operating Hours	10
4.2	Noise & Vibration Controls	10
5.0	Air and Dust Management	11
5.1	Objective	11
5.2	Operational Controls	11
6.0	Stormwater and Sediment Control	12
6.1	Objective	12
6.2	Controls	12
7.0	Waste and Materials Re-use	12
7.1	Objective	12
7.2	Controls	12
8.0	Traffic Management	12
8.1	Objectives	12
8.2	Controls	12
9.0	APPENDIX	
9.1	Appendix A Traffic Control	13
9.2	Appendix B Waste Management Control	17
9.3	Appendix C Site Establishment Plan	23
9.4	Appendix D Storm Water Sediment Control Plan	25

1A SICEEP - Introduction

This report supports a State Significant Development (SSD) Development Application (DA) submitted to the Minister for Planning and Infrastructure pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The Application (referred to as SSDA 3) follows the submission of a staged SSD DA (SSDA 2) submitted in March 2013 to the Department of Planning and Infrastructure that set out a Concept Proposal for a new mixed use neighbourhood at Darling Harbour known as 'The Haymarket'. The Haymarket forms part of the Sydney international convention, exhibition and entertainment precinct (SICEEP) Project, which will deliver Australia's global city with new world class convention, exhibition and entertainment facilities and support the NSW Government's goal to "make NSW number one again".

More specifically this subsequent DA seeks approval for a residential building (student accommodation) within the Western development plot (Darling Drive) of The Haymarket and associated public domain works. The DA has been prepared and structured to be consistent with the Concept Proposal DA.

1.1 Overview of Proposed Development

The proposal relates to a detailed ('Stage 2') DA for a residential building (student accommodation) in the Darling Drive Plot of The Haymarket together with associated public domain works. The Haymarket Site is to be developed for a mix of residential and non-residential uses, including but not limited to residential buildings, commercial, retail, community and open space. The Darling Drive Plot is one of six development plots identified in the Concept Proposal DA.

More specifically, this SSD DA seeks approval for the following components of the development:

- Demolition of existing site improvements;
- Associated tree removal and planting;
- Construction and use of one residential building within the Darling Drive Plot, to be used for student accommodation purposes;
- Public domain improvements, including:
 - Realignment and upgrade of Darling Drive (part); and
 - provision of a new urban square (known as Macarthur Place) located at the termination of The Goods Line.
- Extension, realignment and augmentation of physical infrastructure / utilities as required.

1.2 Background

On 21 March 2013 a critical step in realising the NSW Government's vision for the SICEEP Project was made, with the lodgement of the first two SSD DAs with the Department of Planning and Infrastructure. The key components of these proposals are outlined below.

Public Private Partnership SSD DA (SSD 12_5752)

The Public-Private Partnership (PPP) SSD DA (SSDA 1) includes the core facilities of the SICEEP Project, comprising the new, integrated and world-class convention, exhibition and entertainment facilities along with ancillary commercial premises and public domain upgrades.

The Haymarket Concept Proposal (SSD 13_5878)

The Haymarket Concept Proposal SSD DA (SSDA 2) establishes the vision and planning and development framework which will be the basis for the consent authority to assess detailed development proposals within the Haymarket Site.

More specifically the Stage 1 Concept Proposal seeks approval for the following key components and development parameters:

- Staged demolition of existing site improvements, including the existing Sydney Entertainment Centre (SEC), Entertainment Centre Car Park, and part of the pedestrian footbridge connected to the Entertainment car park and associated tree removal;
- A network of streets, lanes, open space areas and through-site links generally as shown on the Public Domain Concept Proposal, to facilitate reintegration of the site into the wider urban context and connection with the broader SICEEP Site;
- Street layouts;

- Development plot sizes, development plot separation, building envelopes (maximum height in RLs), building separation, building depths, building alignments and a benchmark for natural ventilation and solar provision for the precinct;
- Land uses across the site, including residential and non-residential uses;
- A maximum total gross floor area (GFA) across The Haymarket Site of 197,236m² for the mixed use development (excluding ancillary above ground car parking), comprising of:
 - A maximum of 49,545m² non-residential GFA; and
 - A maximum of 147,691m² residential GFA;
- Above ground parking including public car parking;
- Residential car parking rates to be utilised in the subsequent detailed (Stage 2) Development Applications, being:
 - Zero (0) spaces per studio apartment;
 - Maximum one (1) space per two (2) one bedroom apartments;
 - Maximum one (1) space per one bedroom + study apartment, plus one (1) additional space per five (5) apartments;
 - Maximum one (1) space per two bedroom apartment, plus one (1) additional space per five (5) apartments; and
 - Maximum two (2) spaces per 3+ bedroom apartment.
- Design Guidelines to guide future development and the public domain; and
- A remediation strategy.

This report has been prepared to support a detailed Stage 2 SSD DA for a residential building (student accommodation) and associated public domain works within The Haymarket (SSDA 3), consistent with the Concept Proposal SSD DA.

1.3 Site Description

The SICEEP Site is located within Darling Harbour. Darling Harbour is a 60 hectare waterfront precinct on the south-western edge of the Sydney Central Business District that provides a mix of functions including recreational, tourist, entertainment and business.

With an area of approximately 20 hectares, the SICEEP Site is generally bound by the Light Rail Line to the west, Harbourside shopping centre and Cockle Bay to the north, Darling Quarter, the Chinese Garden and Harbour Street to the east, and Hay Street to the south (refer to **Figure 1**).

The Haymarket Site is:

- located in the south of the SICEEP Site, within the northern portion of the suburb of Haymarket;
- bounded by the Powerhouse Museum to the west, the Pier Street overpass and Little Pier Street to the north, Harbour Street to the east, and Hay Street to the south; and
- irregular in shape and occupies an area of approximately 43,807m².



Figure 1 – Aerial Photograph of the SICEEP Site

The Concept Proposal DA provides for six (6) separate development plots across the Haymarket Site (refer to **Figure 2**):

1. North Plot;
2. North East Plot;
3. South East Plot;
4. South West Plot;
5. North West Plot; and
6. Western Plot (Darling Drive).



Figure 2 – Concept Proposal Development Plots

The Application Site area relates to the southern portion of the Western Plot and surrounds as detailed within the architectural and landscape plans submitted in support of the DA (see **Figure 3 – Works Boundary for subject DA**).

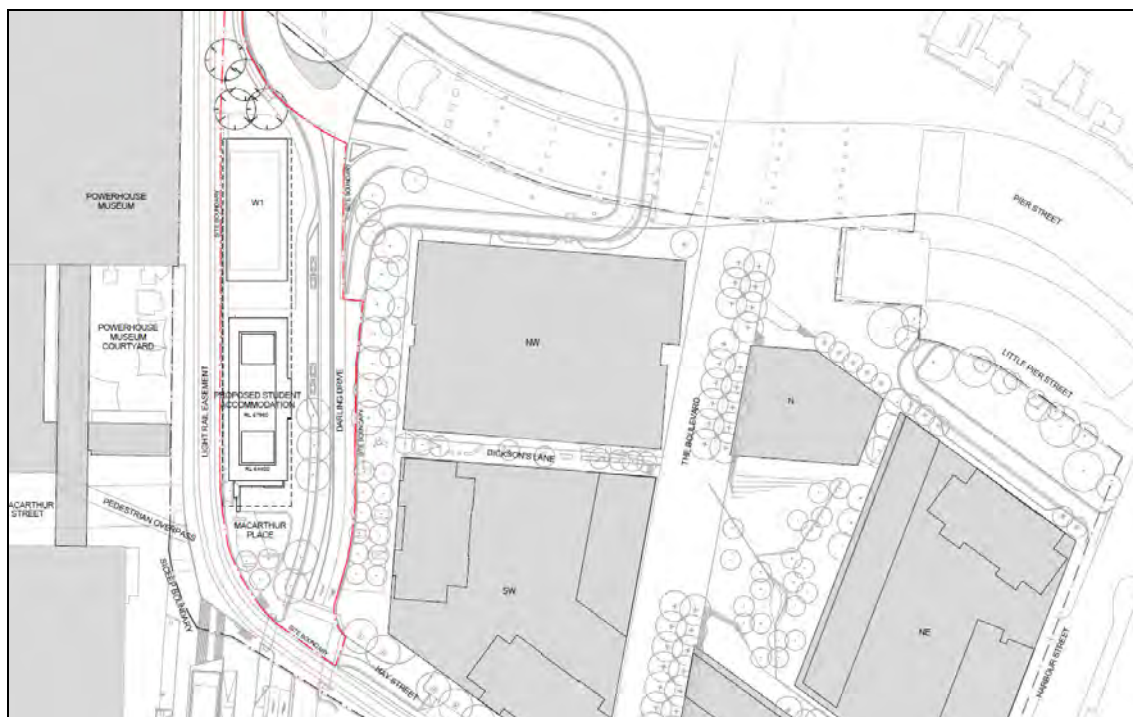


Figure 3 – Works Boundary for subject DA

1.4 Planning Approvals Strategy

The SICEEP Project will result in the lodgement of numerous SSD DAs for the various components of the redevelopment project. SSD DAs have already been lodged for the PPP component of the SICEEP Project (comprising the convention centre, exhibition centre, entertainment facility and ancillary commercial premises and associated public domain upgrades), and the Stage 1 Concept Proposal for The Haymarket. Separate 'Stage 2' SSD DAs for the development of the South West Plot and the North West Plot and associated public domain works will be lodged concurrently with this application. Future applications will be lodged for the Hotel complex, and the remaining development plots of The Haymarket Site.

2.0 Buildcorp CMP - Introduction

2.1 Purpose

This Construction Plan describes how Buildcorp proposes to manage the construction of the New Student Accommodation Darling Drive Haymarket Project. The Purpose of the CMP is to ensure that appropriate actions are undertaken to mitigate the hazards and risks associated with the Construction and environmental issues that may occur throughout the construction process and ongoing operation of the complex.

2.2 Scope

This plan describes the construction aspects of the project, which will need to be managed to achieve the desired outcomes, within the constraints imposed by legislative, regulatory and contractual requirements, so that the desired outcomes are achieved.

2.3 Project Description

The project proposes a single building that contains

- Urbanest 20 levels of New Student Accommodation incorporating a roof top plant room and associated external landscape works. All road realignment works are by others and not part of this CMP. It is assumed that the Darling Drive realignment road works will be completed prior to site establishment.

3.0 Public Safety, Amenity and Site Controls

3.1 Objectives

- ▼ The general public is adequately protected from activities occurring on building sites.
- ▼ Buildcorp provides safe and secure job sites.
- ▼ The building sites are kept neat and tidy to maintain public safety and local amenity.

3.2 Permits/Licenses and Approvals

The following permits/licenses shall be obtained:

Licence/Permit	Issuing Authority
Construction Certificates	AE&D Consulting
Approval for vehicle and pedestrian crossovers on roadways or footpaths	Sydney Harbor Foreshore Authority

3.3 Safety & Security

Each site shall be secured by a perimeter fence (1.8m high) and hoardings as required.

Security measures to be put in place when the site is not occupied include:

- ▼ Perimeter barriers – fencing
- ▼ Locks on gates
- ▼ Project signage complete with after-hours contact details

Hoardings and perimeter fencing are to be designed to prevent climbing and unauthorised entry to the site.

Excavations shall be fenced so that they do not pose a danger to life or property.

Adequate lighting, safety signage and traffic controls shall be provided.

A clearly defined traffic management plan shall be implemented to ensure all motor vehicle movements, to and from the site as a result of construction activities are carefully managed. Refer to Traffic Control Plan appendix A.

3.4 Hazardous Chemicals

All dangerous chemicals shall be properly stored in secure areas located away from emergency exits or stormwater pits.

Hazardous and flammable storage shall be provided on site.

Storage and handling of chemicals shall be in accordance with Material Safety Data Sheets, the Occupational Health & Safety Act 2011 and the Occupational Health and Safety Regulations 2011

Procedures are to be implemented to control and clean up spills.

3.5 Signage

Signage specifying any security measures and key contact details shall be erected on the perimeter of the building site (i.e. attached to the building, fence or hoarding). A 24 hour contact name and phone number shall be provided.

3.6 Public Domain

Buildcorp shall ensure that there are no tripping hazards from the hoarding or perimeter fencing on nearby footpaths. Electrical, plumbing and other services extending over footpaths shall be covered over, and pedestrian and disability access facilitated by a ramp. Ramps shall have a non-slip surface, a handrail, and a maximum gradient of 1:14 unless the existing topography of the street or road requires some variation to this ratio.

The general public shall be protected from construction activities including vehicle loading and off-loading within the public domain. Precautions are to include the following measures:

The use of spotters and traffic controllers.

Restrictions on the hours of operation of these activities to ensure that they will be carried out in non peak hours

Restrictions on the types of work being carried out e.g. welding.

Traffic management controls and signage shall be used.

All construction materials shall be stored onsite and not in public places.

3.7 Demolition of existing structures

A detailed dilapidation report of the existing facility will be undertaken prior to site establishment.

3.8 Excavation

The location and extent of excavations are detailed in the proposal for Construction Civil Works Plans prepared by Northrop Consulting.

The excavation impact on the light rail will be investigated accordingly with the relevant authority.

Vibration and noise are to be kept to a minimum as per City of Sydney Code of Practice for Construction Hours/Noise 1992 and Australian Standard 2436-2010 "Guide to Noise Control on Construction, Maintenance and Demolition Sites"

Erosion and sediment control to be implemented in accordance with civil engineers requirements.

3.9 Existing Trees

Existing trees not identified to be removed will be protected to the requirements of the Landscape Architect / Arborist in consultation with local authorities.

3.10 Site Appearance

Raw materials stored on site shall be adequately secured so as to prevent unnecessary and unsightly disposal of materials around the site and public areas.

Trucks leaving the site shall be cleaned to ensure soil, mud and other site debris is prevented from spilling onto adjoining roads and footpaths.

All loads shall be covered to prevent the accidental spilling of materials on roadways.

3.11 Site Personnel Parking

As far as possible, Buildcorp will encourage site personnel to use public transport during the construction phases and will provide onsite secure materials and equipment storage to assist to this end.

No subcontractors will be permitted to park onsite.

3.12 Site Personnel Behavior

Buildcorp understand that working within commercially operating areas means that site personnel will often need to interact with the general public. Buildcorp have a strict policy for the behavior of staff and subcontractors in these instances.

Buildcorp will instantly remove from site any person deemed to have acted inappropriately in this regard towards the public throughout the life of the project, and will closely monitor this aspect on a daily basis.

4.0 Operating Hours, Noise and Vibration Controls

4.1 Operating Hours

Construction activities subject to an approved development consent are anticipated to be:

7.00am to 7.00pm Monday to Friday

8.00am to 5.00pm Saturdays

No work Sundays and Public holidays

4.2 Noise & Vibration Controls

The criteria for Noise Management from construction activities are aimed at maintaining a level of comfort for the community.

As a result of the sensitivity of this, the Acoustic Engineer is to set the criteria at the Australian Standards. Noise management will be subject to constant review and discussion.

The determination of noise control methods will be dependent on the particular activity and construction equipment being used at that time.

Where a particular activity is found to be generating an unacceptable level of noise, alternative means of construction may be sought.

Acoustic barriers are an effective means of reducing noise, and can be located either at the receiver or at the source.

Silencers can also be utilized, should the construction equipment be suitable.

Vibration Management is to be closely monitored. The Australian Standard for Peak Particle Velocity will be recommended, but individual cases may be monitored at a higher standard.

Vibration impact on the light rail will be investigated accordingly with the relevant authority.

Noise and Vibration Plan

Objectives

This plan is designed to control and minimise the impacts of construction noise on site and to surrounding areas.

Operational Controls

Noise during the construction process will be managed by;

- ▼ Conduct noise monitoring as required to ensure the recommendations stipulated in AS/NZS 2436-1981 "Guide to noise control on construction, maintenance and demolition sites". The monitoring of compliance is to be conducted by the Acoustic Consultant: Acoustic Logic.
- ▼ Limiting the operating noise of machinery brought on to the site; in particular noisy works associated with Demolition, Excavation and Piling.
- ▼ Ensuring the exit ramps to the street and all internal haul roads are the lowest grade practicable.
- ▼ Ensuring the number of trucks on site at the commencement of site activities will be kept to the minimum required by the loading facilities on site.
- ▼ Informing all interested parties of impending or current events which may cause high levels of noise.
- ▼ Providing a Community Contact and prominently displaying a 24 hour telephone number at the front of the site.
- ▼ Issuing breach notifications of non-compliance and implementing corrective action procedure when required.
- ▼ Recording of any incoming complaints in the Community Complaints Register. The registration of a particular item will remain open until the complaint has been appropriately dealt with.

5.0 Air and Dust Management

5.1 Objective

That air quality (airborne dust and pollutants) in and around the construction site be maintained at acceptable levels throughout the construction period.

5.2 Operational Controls

The following activities may cause excessive dust or otherwise affect air quality:

- ▼ Excavation of soil
- ▼ Movement of vehicles / plant on site
- ▼ Construction activities
- ▼ Uncovered stockpiles
- ▼ High winds

The following controls shall be implemented to minimise dust and maintain air quality:

Any stockpiles shall be kept damp or covered

Where vehicle movements over unsealed areas are required, these areas shall be kept damp. A supply of water shall be available at all times.

The installation of metal grids and wash out facilities to ensure truck wheels do not disperse soil and dirt throughout the road network.

Materials transported in open trucks shall be covered to prevent generation of dust.

The tailgates of all vehicles transporting material from the construction site shall be securely fixed prior to loading and immediately after unloading.

Equipment powered by internal combustion engines shall be properly maintained and regularly serviced to prevent the discharge of excessive pollutants, including smoke and/or toxic fumes or odors, and must meet acceptable noise levels.

All plant/equipment exhaust volumes shall be monitored by the Project Supervisor to ensure they are kept to an acceptable level.

Exhausts and ductwork from equipment shall be located away from air intakes, windows, enclosed areas and public areas

The burning of timber and other combustible materials shall not be permitted.

Perimeter fencing shall be covered with shade cloth to help prevent dust blowing outside the construction site.

Materials shall only be cut in designated areas set away from boundaries and public areas, with adequate dust (and noise) suppression. Where cutting needs to occur in situ, localised dust suppression measures shall be used.

Checking weather reports daily to enable action to be taken when high winds are predicted.

Daily inspections of the site by the Project Supervisor.

6.0 Stormwater and Sediment Control

6.1 Objective

To prevent contamination of (or damage to) stormwater drains and waterways and ensure sediment from the building site is retained on-site during construction work

6.2 Controls

Refer to the Stormwater & Sediment Control Plan appendix D.

7.0 Waste and Materials Re-use

7.1 Objective

To maximise the re-use and/or recycling of construction materials.

Waste material to be collected and stored on site until removed.

7.2 Controls

Refer to the Waste Management Plan appendix B.

8.0 Traffic Management

8.1 Objectives

To minimise disruption to traffic (vehicles, pedestrians and cyclists) caused by construction activities to ensure the safety of all public users.

8.2 Controls

During the construction of the development, a Traffic Management plan will be incorporated into the CMP. The movement and flow of the construction traffic cannot interfere with the safe access to the public, staff and visitors.

Traffic management of the site shall be managed throughout the activity period and periodic reports submitted as required.

Refer to The Traffic Control Plan appendix A

Appendix A – Traffic Control Plan

During the construction of the proposed Urbanest Project, Buildcorp shall engage the services of specialist Traffic Control Operators to ensure traffic and pedestrian flow is managed to the highest standards and with the utmost focus on safety. Buildcorp will allocate traffic controllers where required to direct all construction deliveries and to communicate changes to traffic conditions to the users of the precinct. The controllers will be certified as required.

Particular care will be taken to minimise any damage to the surrounding roads as a result of construction activity.

Public Safety and Security

We realise the safety of the public is the highest priority. In order to reduce the risk to the safety of the public, all potential risks need to be identified.

In summary, practices that will be initiated for this project to assist with public safety will include: -

Hoardings to the perimeter of the sites to be used to eliminate the chance of public gaining access and to reduce the visual impact of the construction zone by utilizing shade cloth on perimeter fencing.

Gates to the sites will be monitored at all times. This will be executed by the Project Supervisor & site staff. Each entry point will be carefully signposted and monitored to reduce accidental public access. Refer to attached site establishment plan appendix C.

Daily monitoring and repair of all public access required as a result of construction activities will be conducted.

Surrounding access paths will be cleaned daily in order to reduce the occurrence of slip zones.

A clearly defined traffic management plan will be implemented to ensure all motor vehicle movements to and from the site as a result of construction activities, do not impede on the operations of the parking of the general public. With the public's safety as our primary concern we will ensure licensed traffic controllers and the traffic management plan is approved by Buildcorp Contracting NSW management and is implemented.

When addressing the traffic control requirements for this project, Buildcorp Contracting NSW will attempt to cover all issues applicable to the works.

Description of work.

Traffic Control:

- ▼ Supply of traffic control personnel and equipment as required for the safe and effective control of traffic and pedestrians at Gate # 1 & 2.
- ▼ Set-up roadwork equipment at the various locations specified and in accordance with any guidelines stipulated by MUTCD and tender/contract.

Statement of Quality Assurance Compliance.

Traffic Management Plan:

- ▼ Will be conducted in a professional manner to minimise delays to reduce inconvenience to the public by authorised traffic controllers.
- ▼ Maintain the traffic control equipment as required for the safe and effective control of traffic for the duration of the roadwork.

References

- ▼ Australian Standard AS 1742.3 - 1996
- ▼ MUTCD – Manual of Uniform Traffic Control Devices – Part 3
- ▼ Traffic Management Plan

Ingress and Egress of Vehicles to the Site

Vehicles that are approaching from the North / South will approach via the Darling Drive. The entrance to gate 1 is on the left side of the road, approximately 100 metres from Hay st intersection.

For further information, please refer to the Site Establishment Plan appendix C.

Management of Loading and Unloading of Materials

Equipment and tools set-down, and loading and unloading of materials shall occur in nominated "Delivery and Set-Down Zones / Work Zones. A construction "work Zone" will be implemented across the site frontage along Darling Drive. Approvals will be required through Sydney Harbour Foreshore Authority.

All materials set-downs and deliveries are to be fully coordinated by the Project Supervisor to avoid any delays to vehicular traffic or pedestrian movement for longer than 60 seconds at a time. Where these activities affect normal vehicular and/or pedestrian movement, appropriate traffic management shall be provided. Appropriate notification shall be provided for any large or significant deliveries which may result in prolonged disruptions.

Numbers, Timing and Frequency of Vehicles Accessing the Site

The number of vehicles entering the site is to be restricted to deliveries wherever possible; no subcontractor parking will be permitted on site.

The anticipated number of vehicular access through gate #1 & 2 is expected to be 10 - 15 vehicles per day respectively.

Management Responsibility for Traffic Control

It is the responsibility of the senior traffic controller or nominated person on site to ensure that all traffic control equipment and its allocation is in accordance with the contract specifications and guidelines.

Traffic delays will be kept to an "absolute maximum" of fifteen (15) minutes (as per MUTCD guidelines) for any single vehicle. Routine work delays to traffic flow shall be targeted to no more than sixty (60) seconds.

Traffic delays shall be monitored on a regular daily basis and reported to the Site Supervisor. Areas of work under traffic control shall be programmed to achieve these times and other safety requirements. Any specified lengths of work under traffic shall be nominal distances only.

Queue congestion at closures will be monitored to ensure that any intersection and/or roundabout are not blocked at any time during the program unless unavoidable. Traffic Controllers and signage will direct traffic through the particular closure to ensure this is enforced and maintained.

Responsibility and Authority

Appropriately qualified personnel will undertake direct traffic control. The minimum qualification shall be a current Traffic Controllers' ticket and General Safety (Blue Card) Induction Card. Traffic Controller's will be responsible for ensuring traffic is not unduly delayed and that safety of the general public and workers on site is maintained.

Each traffic controller is required to take corrective action and notify the Site Supervisor if a problem occurs. The relevant parties will communicate via two-way radio, mobile telephone or direct oral communication.

The Traffic Controller's on site, in consultation with Buildcorp Contracting NSW representative, will be responsible for the control of traffic.

The Traffic Management Plan is to be signed off by the representative prior to commencement of the project. Personnel on-site will rectify any Non-Conformances immediately and the Operations Manager will respond to all necessary reports.

Selection of Site Traffic Control Modes.

The following factors have been considered in selecting the appropriate site control modes:

- ▼ Minimising hazard risk to the public and workers on site:
- ▼ Minimising interaction between public traffic and work site pedestrian and construction vehicles.
- ▼ Minimising traffic delays as specified in the Traffic Control at Worksites - 1998.
- ▼ Minimising the occurrence of any traffic stoppages.

Specific Traffic Control Modes.

At the location/s outlined in the job specification, the traffic will be controlled by: -

- ▼ Traffic Controllers will maintain road/lane closures on the sections that are indicated as per Traffic Control Plan and/or contract details.
- ▼ A Buildcorp Contracting NSW representative prior to the commencement of any road/lane closures will complete any applicable application for Road Occupancy/Closure [if applicable] and all other relevant permits for closures.
- ▼ Buildcorp Contracting NSW – Traffic Control Plans / Traffic Management Plan.

Public Notification

Notification will be by way of signage installed by Buildcorp Contracting NSW and approved

Time Restrictions

As per Development Consent instructions.

Equipment List.

2 x Traffic Controller

All signage as specified in the Traffic Control Plan appendix A.

Pedestrians flow

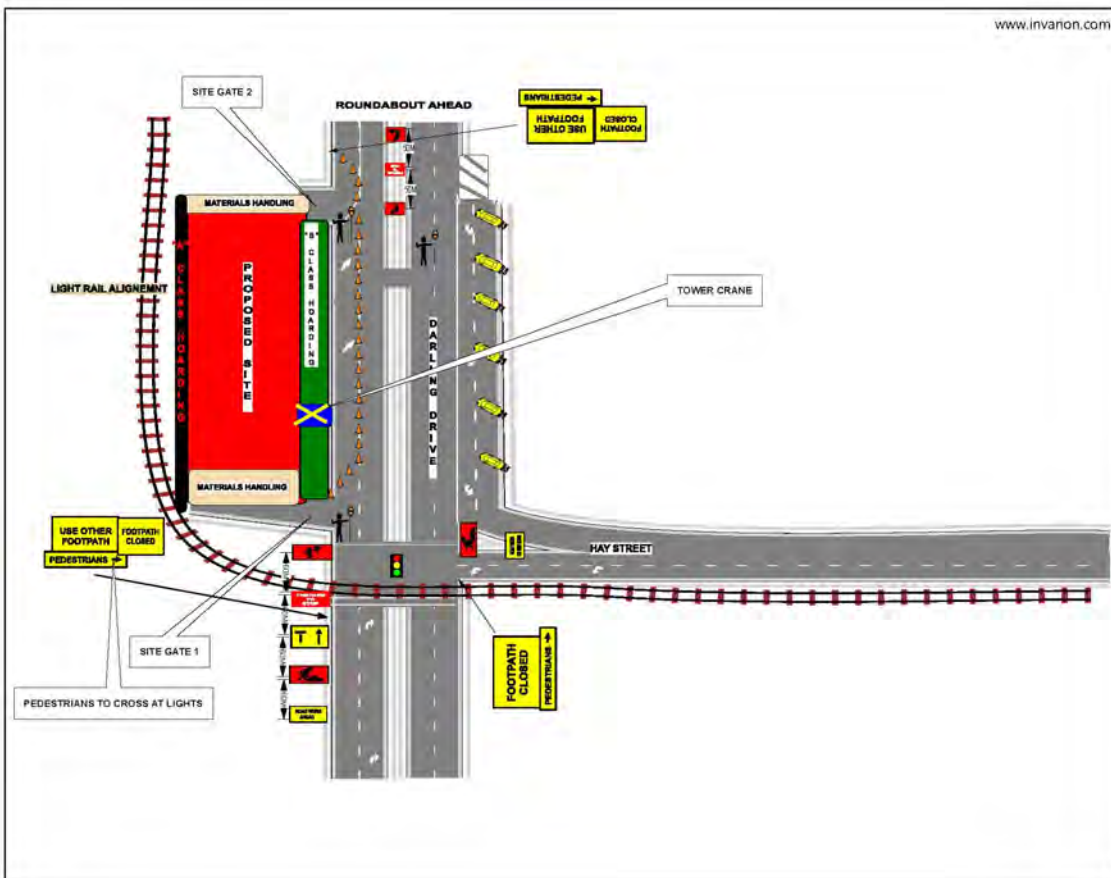
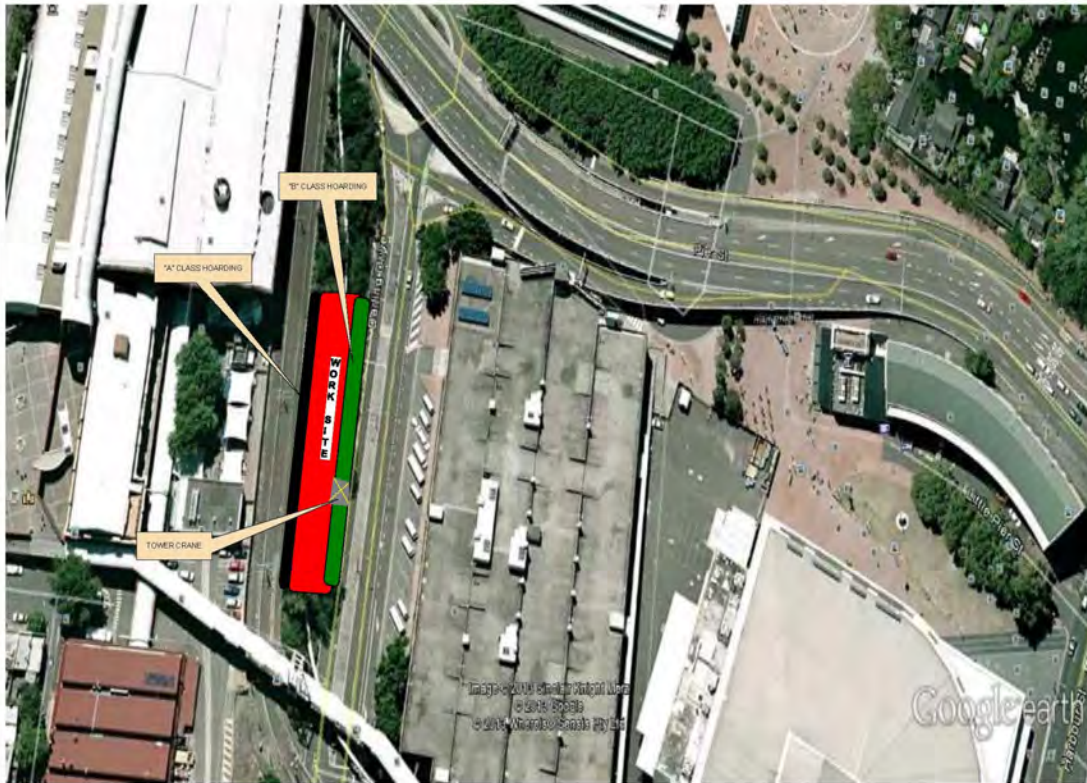
Pedestrians will be required to follow the same directions/detour as vehicles.

No unauthorised personnel shall be allowed within the construction zone.

All personnel (including authorised visitors) on site shall be required to wear as a minimum safety boots, hard hats and safety vests.

Anticipated traffic impact

As part of the TMP and EMP Buildcorp Contracting NSW Pty Ltd encourage the use of car-pooling and public transport. Subcontractors will be advised that there will be no parking available on site. Site contractors will be instructed not to park in the residential areas



Appendix B – Waste Management Plan

Introduction

This Waste Management Plan outlines Buildcorp's strategy to minimise the generation of waste, maximise reuse and recycling and ensure waste is disposed of at a licensed EPA waste disposal facility.

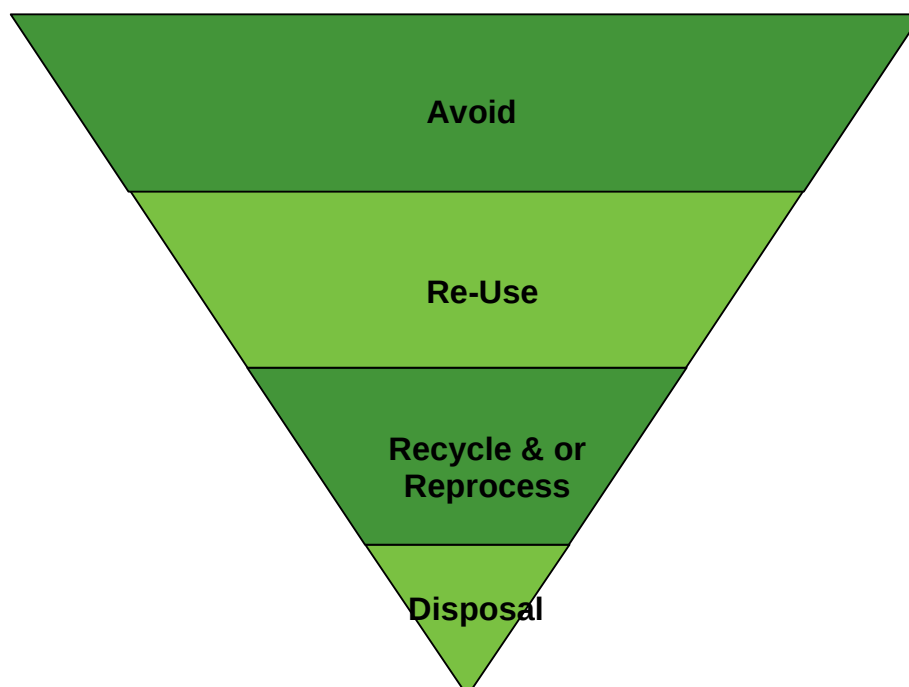
The purpose of this plan is to:

- Establish the specific procedures to ensure waste generated by project activities are minimised and waste is appropriately recycled.
- Provide a consistent and uniform approach that assures the required standards relating to waste are attained and maintained for the project works to achieve minimum recycling / reuse target of 80% of waste by weight minimising the amount of waste going to landfill.
- Establish waste management strategies for the construction stages from demolition, building construction through to commissioning.
- Establish provision for on-site monitoring of wastes generated with details of each material, disposal destinations (tracking) and receipts.
- Define the appropriate waste disposal measures to be undertaken for materials that pose an environmental risk such as soils, concrete, contaminated water, paints etc

Waste Management Hierarchy

Buildcorp have prioritised waste management by adopting a waste management hierarchy as follows:

1. **Avoiding Waste** (identify demolition and construction waste to minimise packaging and over ordering of materials)
2. **Re-Use Materials** (pallets and storage containers)
3. **Recycle and Reprocess Materials**
4. **Disposal of Waste**



Waste Minimisation Controls

The following controls will be implemented on site to ensure waste is minimised on the project:

- Main subcontractors are asked to submit waste minimisation details in their SWMS including the following:
 - i. Avoiding over-ordering materials
 - ii. Minimising the use of un-recyclable packaging materials
 - iii. Reviewing with suppliers, the potential for reusable packaging, such as cloth bags, blankets, pallets or containers for materials and equipment
 - iv. Buying environmentally-approved and recycled-content products where possible
- Waste management training is provided as part of Site Induction, ensuring that subcontractors and site visitors are aware of the materials on-site (in particular any hazardous wastes) and waste disposal requirements.
- Buildcorp will utilise the services of a Waste Sub-Contractor whose facilities and waste procedures have been audited by our sustainability management team for stringency and accuracy. They should need also meet the following requirements:
 - i. Be appropriately licensed under the POEO Act (1997) and associated regulations to transport, store, recycle, reprocess and/or dispose of wastes removed from the site;
 - ii. Provide waste containers and transport vehicles suitable for storage and carriage of waste types to be generated at the site;
 - iii. Can provide EPA licenses of the appropriate landfills that are licensed to accept the waste which is generated on site
 - iv. Provide accurate written documentation including tracking documentation and disposal receipts to Buildcorp in a prompt manner following the disposal of waste from the site to comply with regulatory and Buildcorp contract requirements;
 - v. Remove and transport all waste for disposal to a facility lawfully able to accept the waste;
 - vi. Securely load and cover all vehicles/bins and containing waste prior to exit from the site to minimise the risk of waste spillage, dust generation etc during transport.
 - vii. Facilitate recycling of appropriate materials.
- Prior to commencing work on site project personnel (including subcontractors) are to be informed through the site induction process of the importance of waste, recycling, spills or incident impacts on the site and adjacent areas. Site supervisors are to discuss waste management issues at toolbox and other meetings as required.
- All work areas are to be maintained in a clean and tidy manner. A weekly (or more frequent if required) sweep of the entire site will be completed by the contractor to remove loose waste and/or litter present within the site to appropriate waste/recycling storage facilities in the loading dock.
- Daily inspections are to be conducted to ensure that the worksite is left in a rubbish-free state and that no rubbish has been “trapped” against site fencing
- Regular management audits are to be carried out to ensure that the Waste Management Plan is being adhered to

Waste Management

The table below represents the expected waste types that will be generated during the works and describes how each will be managed on-site, collected and the waste management outcome ranked from the most to least preferred

Waste Type	Waste Management Outcome				
	Most Preferred		Least Preferred		
	Avoid/Reduce	Reuse	Recycle	Recover	Treat &/or Dispose
Steel, Scrap Metal etc...					
Plastics and Foam					
Insulation Material					
Excavated Fill					
Concrete and Bed Mix					
Residual					
Hazardous					
Food and General Waste					

Notes

1. Waste is collected in "general construction waste" bins and is sorted at a resource recovery facility using mechanical and manual sorting techniques that remove wastes such as plasterboard, timber, metal, cardboard and plastic for recycling.
2. Residual waste refers to construction waste other than those listed as a waste type.
3. Waste Management Definitions:

Re-use, means the activity of using waste materials in their current form (ie. not altering their chemical or physical state)

Recycling, means the activity of processing waste materials to form new products

Recovery, means the activity of processing waste materials for the purpose of recovering energy (eg. incineration)

Disposal means the activity of depositing waste materials in landfill.

Demolition

Where possible, demolition of the remaining components of the existing building is carried out in a manner to maximise reuse or recycling.

Prior to demolition works commencing, a hygienist's clearance will be provided for all hazardous materials. Should any classified material be identified a specialist subcontractor should be engaged to remove the waste. These materials are to be disposed of in accordance with Authority requirements. Should the material to be demolished not be identified as hazardous it should be placed in the provided construction waste skip bins which will then be collected by the approved subcontractor for sorting and disposal.

A demolition Safe Work Method Statement should be prepared by the contractor who is registered with Work Cover Authority. Demolition by induced collapse, the use of explosives or on site burning is not prohibited.

Excavation Fill Material

Any fill materials identified requiring excavation within the site footprint should be reused, where suitable, on the site as part of the site engineering or landscaping work. Excess or contaminated excavation fill is to be removed off site and classified in accordance with relevant authorities. To ensure the fill is being taken to the correct landfill the subcontractor transporting the waste should provide details of the landfill site, the EPA licence details and confirmation that landfill is authorised to receive that waste. Trucking docket records are to be kept on site to check that fill is going to the nominated landfills.

Construction Waste

Construction and demolition bins are located in separate areas on the site to ensure safe storage and collection of waste. The construction waste generated on site is placed in mixed waste skip bins, meaning that all waste is deposited in the one skip bin and segregation into the appropriate waste streams occurs offsite.

Food and general waste

Food scrap/ general waste bins are provided in the vicinity of site offices and amenities. It is sorted into general waste, cans/bottles and paper/cardboard. Buildcorp site sheds have paper bins and printer cartridge bins (for staff to return to head office for recycling).

Hazardous Materials

Contaminated waste including asbestos will be disposed of to an EPA licensed facility which is able to take the waste. Contaminated waste will be stored within designated storage areas on site. Records of disposal of the waste should be maintained with site records.

Hazardous Substances

Any subcontractors handling, using or disposing of harmful or toxic chemicals or substances are to ensure they follow appropriate manufacture requirements and legislation requirements in disposal. No chemicals or substances are to be disposed of down any drains, sewer etc on- site.

If a spillage of a hazardous substance occurs staff are appropriately trained in spill kit procedures to clean up spills immediately. Spill kits are located adjacent to the areas where hazardous substances are stored on site. Once the substance has been cleaned up it will then be disposed of to the appropriate EPA licensed facility. Records of disposal and the clean up methods of the spill are to be maintained with site records.

Waste Water/Wash Out Areas

Wash out facilities for finishing trades including concrete and paint waste are to be minimised and water recycling for these activities are encouraged. If a wash out facility is utilised it should not be plumbed to any building services or drain to stormwater.

The wash out area will have sediment controls and should be clearly signposted. The location of the wash down area shall be made aware during the site induction.

The wash out area and sediment controls should be emptied of all solid residues regularly in order for it to catch waste water. Solids which are caught by this process should be disposed of in a bin going to a licensed waste facility.

Transportation Access and Designated Rubbish Areas:

The sediment erosion control plan appendix D shows access locations for waste contractors, designated rubbish areas and wash down areas. Skip bins are provided on site for the management of mixed construction waste and are then taken away and sorted by a Buildcorp approved Waste contractor

Waste Management Roles and Responsibilities

To manage waste generation on site the following roles and responsibilities have been set for all contractors to follow and ensure the waste recycling targets can be met. The table below represents a summary of the waste management roles and responsibilities for the works on the Urbanest New Student Accommodation Darling Drive Haymarket Project.

Project Task	Responsibility
Site Operation	
Buildcorp	- Ensuring that waste is segregated and collected in accordance with this Plan - Ensuring that Duty of Care documentation is obtained and maintained in the site file (eg. copy of waste transporters licence, waste collection receipts, waste transport certificates) - Updates to the Plan and Building Management approvals - Supervising the collection of waste by the waste contractor (where practical) - Maintaining site records of waste types and approximate quantities collected from site
Waste Sorting	
All Contractors	- It is the responsibility of all contractors to be inducted into this plan and put waste into the correct bins on site for appropriate disposal off site - Contractors are to use the designated bins on site and not dispose of any materials except within designated bins on site - Minimise the generation of wastes through appropriate behaviour on site through site measurement and ongoing management of works
Waste Collection & Management	
Waste Contractor & Buildcorp Project Manager & Project Supervisor	- Supply of bins, according to agreed approach & ongoing site requirements - Collection & disposal of waste, as agreed & according to ongoing site requirements - Weighing and sorting of all wastes generated on site for disposal off site - Ensuring that the waste collected is managed in accordance with the relevant legislation and the identified wastes are re-used, recycled or recovered
Reporting	
Buildcorp Project Administrator	- Tracking of wastes generated - Reporting of all waste data to (Green Star Consultant) and Client - End of Project reporting of waste data to confirm % recycled / reused and wastes to landfill - Preparation of final waste report for the site

Monitoring, Conformance and Reporting

The Buildcorp approved Waste Contractor will provide monthly recycling and waste minimisation reports. These reports are audited to ensure that we are reaching our set targets. Records of the total waste generation and disposal to landfill or recycling are retained on site by Buildcorp contractor site staff.

Any subcontractor found to be inappropriately acting will be issued with a non- conformance and rectification notice immediately by BCNSW. The procedure for environmental non- conformances is as follows:

- i. Site issue is identified
- ii. BCNSW investigates and issues a response to all subcontractors
- iii. BCNSW issues non-conformance/rectification notice to party responsible
- iv. Subcontractor to cleanup up immediately to relevant legislative requirements
- v. BCNSW notifies external parties as required and final notice to subcontractor

Audits are to be conducted on waste generated to ensure it is being disposed of as per the procedures set out in this Waste Management Plan.

APPENDIX C – Site Establishment Plan

Site Set-up

Site Compound

It is proposed that the project will have site amenities & storage facilities located on the eastern side onto of the Bclass hoarding along Darling Drive. Access for construction traffic through gate 1 & 2. All site inductions would be conducted via site entry off gate 2 at the northern end of the site.

Site access

Site access through Gate 2 Darling Drive will be via secured gates and may vary as the different construction stages are completed. Heavy vehicle traffic is expected through demolition, earthworks, piling, and foundations, in ground services, lift pits and ground floor installation stages. The erection of the structure will also incorporate a work zone on Darling Drive.

Site Storage

The way that materials come to site will also play a part in the speed of constructing the project. All materials must come to site in a packaged type of way for example, bulk materials i.e. bricks will need to be in pallets wrapped in safety plastic to allow the quick loading & unloading by the crane.

Site Amenities

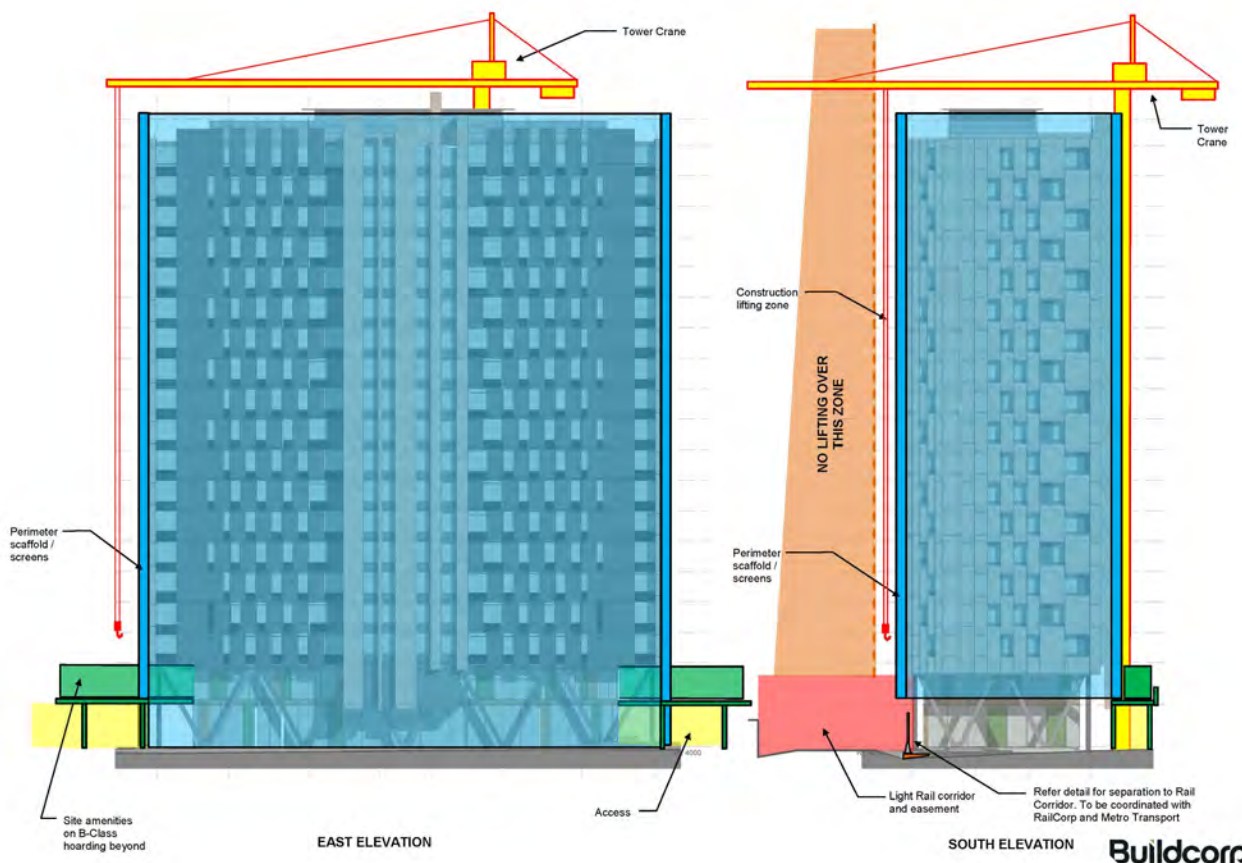
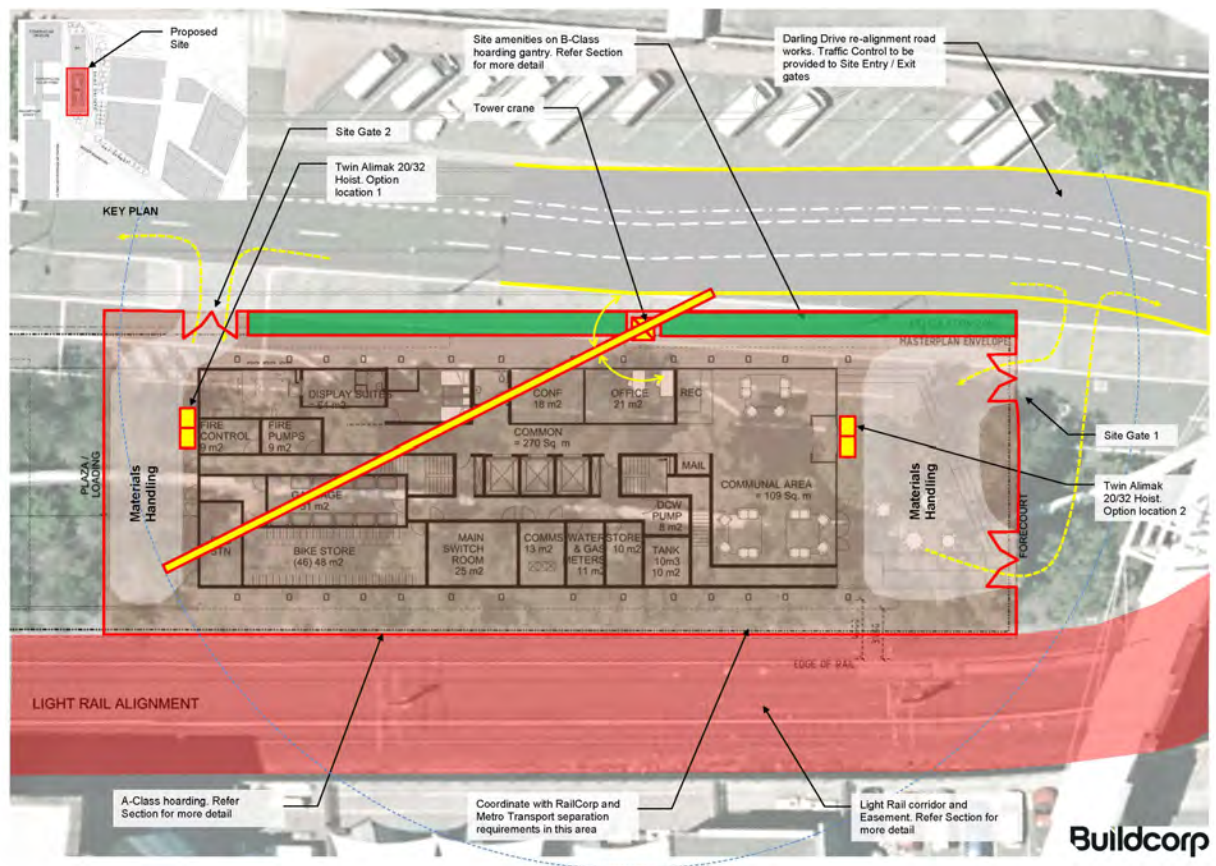
We have proposed the site amenities will be installed within the area denominated for construction along the eastern Public domain area of the site onto of the Bclass hoarding. We anticipate the site population peak to be 200 men.

As the contractors will need to go through the standard security checks prior to coming on site, the team will conduct all inductions & checks of SWMS prior to any contractor commencing on site in accordance with the BCNSW Safety system.

Proposed Site Office: We are proposing a site office be located immediately of gate 2 to secure the site entry and control site inductions.

Tower Canes air space: The Tower boom will extend approximately 50metres over the eastern boundary at certain times during and after hours. This will be coordinated with neighbouring building sites.

Light Rail Corridor: We require access into the Light Rail corridor easement to construct the project. Occupation to a zone from 2m off the track will be sought at the outset for the duration of construction work. Separate approval will be sought from the operator if access beyond this is required. Approval will have to be obtained from the Light Rail operator to slew the crane and allow the boom to weather vane over the light rail stratum. It is understood that lifting will not be permitted over the track.



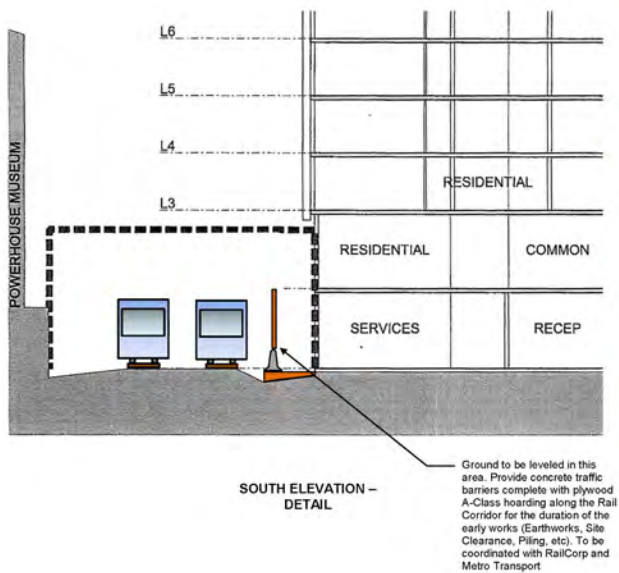


PHOTO OF RAIL CORRIDOR

Buildcorp

APPENDIX D – Stormwater & Sediment Control Plan

Introduction

1.1 Purpose

This Stormwater and Sediment Control Plans describe how Buildcorp proposes to manage stormwater, prevent erosion, control sediment and prevent pollution.

1.2 Scope

This plan describes the stormwater and sediment control aspects of the project, which will need to be managed to achieve the desired outcomes, within the constraints imposed by legislative, regulatory and contractual requirements, so that the desired outcomes are achieved.

1.3 Objectives

To prevent contamination of, or damage to, stormwater drains and waterways and ensure sediment from the building site is retained on-site during construction work.

1.4 Project Site

The project site and proposed structure is shown below:

The overall SICEEP Site has been divided into three distinct redevelopment areas. This CMP relates to the Haymarket area.

1.5 Project Description

The project proposes a single building that contains Urbanest 20 Storey New Student Accommodation with a Roof top plant room and associated external landscape works.

1.7 Site Specific Details

The construction site is located 100metres east of Hay st along Darling Drive.

Operational Controls

Stormwater shall be prevented from entering adjoining properties or into the sewerage system.

Stormwater shall be captured and filtered in sediment control points before entering the legal point of discharge.

Rumble grids shall be cleaned daily with consideration given to water saving measures including recycling. Water run-off from cleaning the grid must be filtered prior to entering the legal point of discharge.

Stockpiles shall be located away from drainage lines and street drains and gutters. Where possible, stockpiles shall be located on the highest part of the site clear of main activity areas.

Designated truck/vehicle/ equipment wash down areas shall be located near the site entrance and be designed to capture and treat water prior to discharge into the stormwater system. A water recycling system shall be installed if wash down areas exceed 3000 litres per day.

Wherever possible, natural vegetation shall be retained to absorb water flows and to minimise dust. Revegetation shall occur as soon as possible after the completion of works

Natural rainwater run-off shall be controlled to prevent sediment draining into the stormwater system. Upslope water shall be diverted to prevent it from travelling through the site. Downpipes shall be connected as soon as a roof is installed on the site. Natural falls of the site shall be identified and sediment filters such as straw bales filters, gravel surface barriers, sandbags, pit baskets or geo-textile mesh screens shall be installed at runoff points. Sediment shall be trapped and controlled prior to leaving the site boundary.

Straw bales/geo-textile mesh screens shall be inspected and replaced on a regular basis so they remain effective.

Sediment traps or filters shall be placed around any drain affected by construction works to prevent sediment entering the stormwater system. Sediment controls shall be checked regularly to ensure they are in place and operating properly. Additional inspections shall be undertaken immediately following or during heavy rain (10mm or more rainfall event) to confirm the operational adequacy of the facilities.

Water shall not be discharged to the stormwater system if oil is visible on the surface, or if there is reason to suspect that the pit is contaminated with fuel, sewage or other contaminants. In this case the water shall be taken away to an oil separation facility (such as Lidcombe Liquid Waste Facility);

Waste material, including liquid wastes such as paint, concrete slurries and chemicals, will not be discharged into a stormwater drain. Facilities shall be provided to enable paint brushes, rollers and spray equipment to be cleaned without any discharge of by-product into the stormwater system. Where possible, a depression or earth dam below brick, concrete or tile cutting shall be constructed. If this is not possible, site water shall be passed through a filtered pit.

Buildcorp will monitor discharge from the sediment trap during design rain events (up to 5ear ARI) to ensure only visibly clean water is discharged from site. Additional measures such as the addition of flocculants to the sediment trap may be employed if necessary.

Wastewaters which are still "dirty" or contaminated will not be discharged to stormwater systems, but instead collected and properly disposed.

Water Saving

Permanent water saving measures shall be used on site. These include:

All hoses must be in good condition and fitted with a trigger nozzle.

A high pressure water cleaning unit is to be used for all washdown activities

